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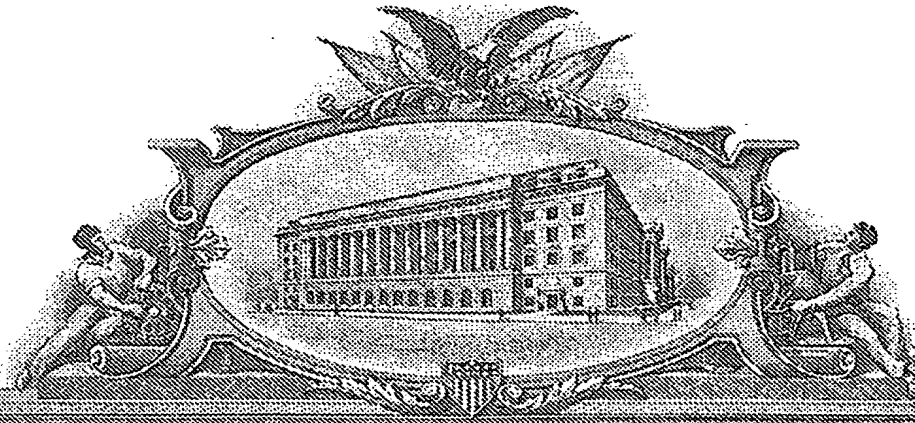
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# THE UNITED STATES OF AMERICA

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*February 01, 2006*

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**APPLICATION NUMBER: 60/626,572**

**FILING DATE: *November 10, 2004***

**RELATED PCT APPLICATION NUMBER: *PCT/US05/40711***

**THE COUNTRY CODE AND NUMBER OF YOUR PRIORITY APPLICATION, TO BE USED FOR FILING ABROAD UNDER THE PARIS CONVENTION, IS *US60/626,572***



Certified by

Under Secretary of Commerce  
for Intellectual Property  
and Director of the United States  
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111004

17589 U.S. PTO

PTO/SB/16 (09-04)

Approved for use through 07/31/2006. OMB 0651-0032

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**PROVISIONAL APPLICATION FOR PATENT COVER SHEET**

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

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2154 U.S. PTO  
60/826572

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INVENTOR(S)		
Given Name (first and middle (if any))	Family Name or Surname	Residence (City and either State or Foreign Country)
Michael F.	Greene	Amherst, NH
William E.	Tonseth	Hudson, NH
Additional inventors are being named on the <u>1</u> separately numbered sheets attached hereto		
<b>TITLE OF THE INVENTION (500 characters max):</b>		
Device For Establishing Communications Interoperability At An Incident Site Including Means For Recording Crisis Incidents		
Direct all correspondence to: <b>CORRESPONDENCE ADDRESS</b>		
<input checked="" type="checkbox"/> The address corresponding to Customer Number: <u>22500</u>		
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<b>ENCLOSED APPLICATION PARTS (check all that apply)</b>		
<input checked="" type="checkbox"/> Specification Number of Pages <u>5</u>		
<input type="checkbox"/> CD(s), Number of CDs _____		
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<input type="checkbox"/> Other (specify) _____		
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76		
<b>METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT</b>		
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.		
<input type="checkbox"/> A check or money order is enclosed to cover the filing fees.		
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.		
<input checked="" type="checkbox"/> The Director is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: <u>190130</u>		
A duplicative copy of this form is enclosed for fee processing.		
<input checked="" type="checkbox"/> The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government. No.		
<input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____		

SIGNATURE

Daniel J. Long

Date

11/9/04TYPED or PRINTED NAME Daniel J. LongREGISTRATION NO. 29,404TELEPHONE 603-885-2643

(if appropriate)

Docket Number: 20040138 PRO**USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT**

This collection of information is required by 37 CFR 1.51. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**PROVISIONAL APPLICATION COVER SHEET**  
**Additional Page**

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<b>First Named Inventor</b>	Michael F. Greene	<b>Docket Number</b> 20040137 PRO
<b>INVENTOR(S)/APPLICANT(S)</b>		
<b>Given Name (first and middle [if any])</b>	<b>Family or Surname</b>	<b>Residence (City and either State or Foreign Country)</b>
Mihir D.	Boal	Nashua, NH

Number 2 of 2

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EXPRESS MAIL CERTIFICATE EV453030950

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Greene, et al.

Filed: Herein

Atty. Dkt. No: 20040138PRO

For: Device For Establishing Communications Interoperability At An Incident Site Including Means For Recording Crisis Incidents

CERTIFICATE OF MAILING 37 CFR 1.10: I certify that this correspondence is being deposited on the below date with the U.S. Postal Service with sufficient postage as EXPRESS MAIL addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date:

11-10-04

*Gloria Abbasciano*

Gloria Abbasciano

Dear Honorable Commissioner:

LETTER OF TRANSMITTAL

Submitted herewith is a Provisional Patent Application consisting of 5 pages of cover sheet, specification and claims.

[ ] Invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

DEPOSIT ACCOUNT 190130 AUTHORIZATION - The Office is hereby authorized to charge the required fee, and any deficiency or credit any overpayment in the fees to the above deposit account, owned by BAE SYSTEMS Information and Electronic Systems Integration Inc.

Respectfully submitted,

*Daniel J. Long*

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**DEVICE FOR ESTABLISHING COMMUNICATIONS INTEROPERABILITY  
AT AN INCIDENT SITE INCLUDING MEANS FOR RECORDING  
CRISIS INCIDENTS**

**Cross Reference to Related Application**

This application is related to U.S. Patent Applications Serial No. 10/943,323, filed September 17, 2004 and Serial No. 60/575,774 filed May 28, 2004. The contents of both of which are incorporated herein by reference.

**Background of the Invention**

**1. Field of the Invention.**

The present invention relates to mobile communications and more particularly to an ad hoc module for establishing a temporary incident area network at a local scene of an incident for communication interoperability compatible with and through the responder's everyday standard issued communication units.

**2. Brief Description of Prior Developments**

The above-referenced U.S. Patent Application Serial No. 10/943,232 discloses an ad hoc emergency interoperability communication network which is established by providing universal temporary incident area network modules that communicate with each other on a network, with the network being established when vehicles containing the temporary incident area network modules within range of each other. The temporary incident area network modules are such as to have an RF or other connection with handheld or in-vehicle communications devices of whatever variety, but which have standardized voice, data and push-to-talk channels. The system thus allows communications amongst the responders to an incident without having to set up

prearranged protocols, equipment compatibilities, or equipment addressing. Moreover, command and control structure can be achieved through a commander having access through his own temporary incident area network module to be able to route and control the flow of information of the net. Portable temporary incident area network modules may be provided to provide range extension capabilities, for instance, for handheld modules that communicate with the temporary incident area network modules, which have a self-contained battery. Moreover, in one embodiment, switches are provided on the communications equipment for the individual to be able to have the communications equipment switched between the ad hoc temporary incident area network and the closed network of the department for whom the individual works.

After every major incident many reports are written where the author, a First Responder, is required to record from memory the sequence of events and as much detail about each event as possible. These reports are reviewed and analyzed to learn how to improve First Responder activities however the accuracy of these reports are dependant on the memory of the individuals. Also, the reports from the various agencies have to be integrated in time sequence manually.

The disadvantage of such prior art methods for recording events is that they may be time consuming or inaccurate and they depend on recall of individuals embroiled in a crisis situation. Such methods also require manual integration of many reports to have a full description of an incident.

A need, therefore, exists for a solution to the above problems.

### Summary of Invention

According to the method and apparatus of the present invention all communication and data is available on the ad hoc wireless network. This data can be captured real-time and recorded. All data from all departments can be recorded in its actual sequence. In addition to capturing the data for analysis, the recorded events can be used for play back during training.

### Detailed Description of the Preferred Embodiment

The wireless mesh network that connects the units in the method and apparatus of the present invention carries all the voice traffic at the incident scene. This voice traffic can be captured by one point / node in the network and captured in real time. This real time capture is conducted in the sequence that the conversations happen. Once captured, voice recognition algorithms can be used to convert this voice to text and entered into the Incident Report. This eliminates the manual reconstruction process that has individual first responders write a report of the events and then all these reports would have to be merged and correlated in time to accurately reconstruct the incident.

While the present invention has been described in connection with the preferred embodiments of the various figures, it is to be understood that other similar embodiments may be used or modifications and additions may be made to the described embodiment for performing the same function of the present invention without deviating therefrom. Therefore, the present invention should not be limited to any single embodiment, but rather construed in breadth and scope in accordance with the recitation of the appended claims.



Claims

What is claimed is:

1. A system for aiding first responders to an incident to intercommunicate regardless of the type of communications devices used by the first responders, comprising:

a temporary incident area network module for one or more of said communications devices, said module converting the frequencies and protocols of the communications devices coupled thereto to a universal frequency and protocol and establishing wireless communication between said universal modules using said universal frequency and protocol, one of said modules setting up an ad hoc temporary incident area network at said incident, such that when additional modules arrive at the incident, said ad hoc temporary incident area network permits interoperability between communications devices used by the first responders arriving at the incident; and

means for recording data from said incident.

Abstract

A system for aiding first responders to an incident to intercommunicate regardless of the type of communications devices used by the first responders. A temporary incident area network includes a module for one or more of said communications devices. There is also a module which converts the frequencies and protocols of the communications devices coupled thereto to a universal frequency and protocol and establishes wireless communication between said universal modules using said universal frequency and protocol. One of the modules sets up an ad hoc temporary incident area network at the incident, such that when additional modules arrive at the incident, the ad hoc temporary incident area network permits interoperability between communications devices used by the first responders arriving at the incidents. There is also a device for recording an entire crisis incident.

From the INTERNATIONAL BUREAU

**PCT**NOTIFICATION CONCERNING  
SUBMISSION OR TRANSMITTAL  
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

To:

LONG, Daniel, J.  
BAE Systems Information and Electronic  
Systems Integration Inc.  
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Nashua, New Hampshire 03060  
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) <b>03 March 2006 (03.03.2006)</b>		
Applicant's or agent's file reference <b>20040138 PCT</b>	<b>IMPORTANT NOTIFICATION</b>	
International application No. <b>PCT/US2005/040711</b>	International filing date (day/month/year) <b>10 November 2005 (10.11.2005)</b>	
International publication date (day/month/year) <b>Not yet published</b>	Priority date (day/month/year) <b>10 November 2004 (10.11.2004)</b>	
Applicant <b>BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION INC. et al</b>		

- By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- (If applicable)* The letters "NR" appearing in the right-hand column denote a priority document which, on the date of mailing of this Form, had not yet been received by the International Bureau under Rule 17.1(a) or (b). Where, under Rule 17.1(a), the priority document must be submitted by the applicant to the receiving Office or the International Bureau, but the applicant fails to submit the priority document within the applicable time limit under that Rule, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
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<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
10 November 2004 (10.11.2004)	60/626,572	US	13 February 2006 (13.02.2006)

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